Riding the Wave of Top Performing Funds using F13 Filings

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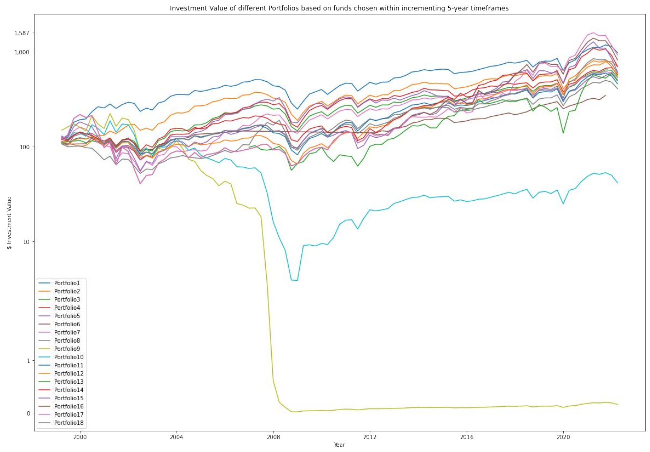
Driving Question(s)

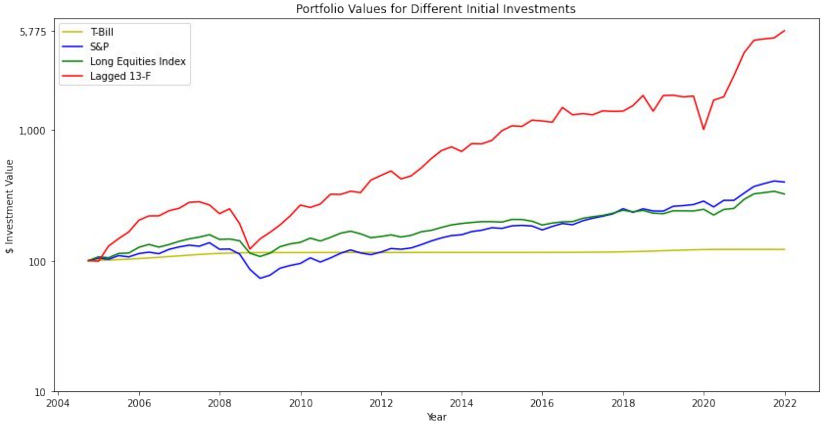
1. *Can a retail investor replicate the returns of top performing funds over the long run by mimicking their holdings as reported on their quarterly 13F filings?*
   a. *In other words, what returns can be achieved by a retailer investor when copying positions found within the* ***lagging****,* ***SEC-required, 13F report.***

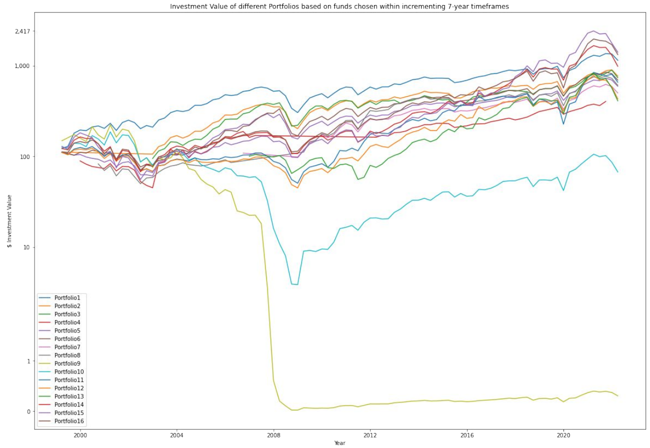
2. *If a retail investor were able to successfully mimic the quarterly reported holdings of top performing, long term value / growth funds, could they also outperform the market?*
   a. *Does this* ***lag*** *make a difference?*

Key Results

1. *Key Portfolio returns exceed comparable investment strategies*
2. *Returns from portfolios based on best performing entities within given x-year periods still outperform comparables*
    a. *These returns control for overfitting by selecting best performing funds over a given period and then testing it by calculating returns over the entire available investment horizon*





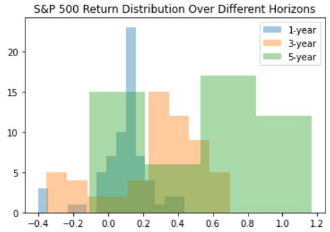


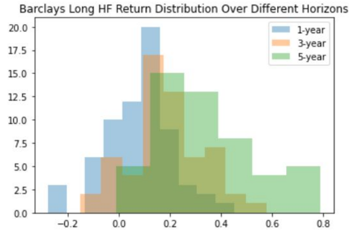
Key Results

1. ***The 13-F portfolio did perform worse than the S&P 500 when it came to managing risk (higher VaRs and negative expected loss), while the Long Bias performed the best.***

2. ***We did calculate statistically significant alpha and low market beta in our CAPM and Fama-French regressions, but would take those results with a grain of salt (low r2).***

3. ***Other interesting observations:***
   a. ***Distribution symmetry around 15-25% returns across time horizons for the Long Bias index.***
   b. ***SMB and HML factors being potentially indicative of the types of positions top performing funds take.***





Loss	S&P 500	Barclays Long Bias	Lagged 13F
1 Year	16.67%	25.76%	16.67%
3 Year	18.97%	10.34%	13.79%
5 Year	18%	2%	0%

Loss Sizing	S&P 500	Barclays Long Bias	Lagged 13F
1 Year	-15.40%	-8.25%	-21.83%
3 Year	-21.60%	-7.11%	-17.54%
5 Year	-7.52%	-1.12%	nan%

>100% Gains	S&P 500	Barclays Long Bias	Lagged 13F
1 Year	0%	0%	1.52%
3 Year	0%	0%	8.62%
5 Year	0%	0%	42%

VaR	S&P 500	Barclays Long Bias	Lagged 13F
1 Year	-22.08%	-9.79%	-34.10%
3 Year	-24.81%	-4.64%	-24.46%
5 Year	-9.04%	7.29%	50.79%

Excess Returns

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13F Lagged:        Mean = 7.1850%; SD = 17.1626%
Long Bias Index:   Mean = 1.5876%; SD = 5.6069%
Market:            Mean = 2.5455%; SD = 6.9530%

 13F vs Long Bias Index Corr = 0.2446
 13F vs Stock Market Corr = 0.2100
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Sharpe ratios relative to the risk free rate

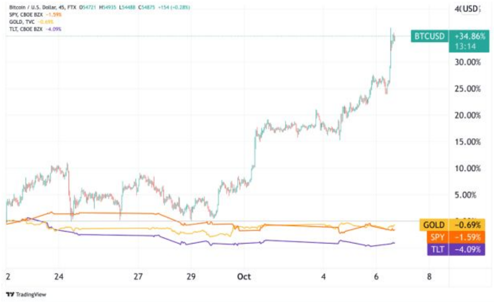
S&P 500: 1.04

Lagged 13F: 1.45

Barclays Long Bias: 0.98

Main Takeaways

1. ***Key Findings***
   a. *One can successfully copy hedge fund returns in the long run by buying what is reported on their 13Fs* (with some caveats)
   b. *Identifying top performing funds (and which funds will continue to be top performing in the future) is very difficult*
   c. *If one can identify a top performing fund and start to buy what they report in their 13F, over time, one can successfully "mimic" their returns and therefore beat the market*



2. ***Key Recommendations***
   a. *Identify top funds*
   b. *Invest for the long term*
   c. *Always continue learning and iterating*